Rheumatoid arthritis - comorbidity and clinical aspects

AB0151

FOLLOW-UP IN A MULTIDISCIPLINARY UNIT IMPROVES PREGNANCY OUTCOME IN INFLAMMATORY ARTHROPATHIES ON BIOLOGICAL THERAPY

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Background: Women with inflammatory arthropathies have fertility problems and complications during pregnancy and frequently biological therapy (BT) is required for the disease control.

Objectives: To evaluate pregnancy in women with inflammatory arthropathies in a multidisciplinary unit composed of Rheumatologists and Obstetricians: describe disease evolution, complications and treatment used (including BT).

Methods: Retrospective and descriptive study of the evolution of pregnancy in patients with

inflammatory diseases (Rheumatoid Arthritis (RA), Spondyloarthritis (SpA) and Juvenile Idiopathic Arthritis (JIA)) and follow-up in a multidisciplinary unit for more than 15 years (until December 2020). Demographics, maternal disease, time until conception, previous abortions and presence of antibodies were collected. In addition, during follow-up, treatment, abortions, Caesarean sections (C-section), preterm births, disease activity and maternal/fetal complications were collected.

Results: We registered 41 pregnancies (32 women): 20 RA (62.5%), 9 SpA (28.1%) and 3 JIA (9.4%). Maternal average age at diagnosis was 27.1±6.6 years and average age at childbirth/abortion was 34.9±5.1 years.

It took an average time of 9.6±8.5 months to conceive. 9.8% received fertility treatment with in vitro fertilization techniques.

AntiRo antibodies were registered in 7.3% of patients and 34.1% had at least 1 antiphospholipid antibody.

At the time of gestational desire/gestation 17 women (12 RA, 4 SpA, 2 JIA) were receiving BT: 7 certolizumab (CZP), 7 adalimumab (ADA), 3 etanercept (ETN). 1 patient was being treated with baricitinib. Due to pregnancy, ADA was changed to CZP in 3 women and BT was stopped in 6 cases (3 ETN, 2 ADA, 1 CZP) as well as baricitinib. In 2 cases, ADA was stopped at week 17 of pregnancy (medical indication). Pregnancy was completed with BT (CZP) in 9 cases.

9 abortions were registered prior to follow-up in the unit (0.28 abortions/mother) and 3 during follow-up (0.09 abortions/mother): 2 of them in women with CZP.

C-section was performed in 26.8% of cases.

Preterm birth (<37 weeks) happened in 9.7% (n: 4) of the pregnancies: 1 case in a woman with CZP.

A total of 17 different fetal/maternal complications were registered during follow-up: 6 in the BT group (35.3%) compared to 11 (64.7%) in the group without BT, being Intrauterine Growth Restriction (IUGR) more frequent among women with BT. Infections were not more common in patients with BT. Complications are listed in Table 1.

Table 1.

COMPLICATIONS	WITH BT (n, %) n: 11	WITHOUT BT (n, %) n: 30
IUGR	3 (27.3%)	1 (3.3%)
LOW BIRTH WEIGHT	2 (18.2%)	2 (6.6%)
INFECTION	1 (9.1%)	4 (13.3%)
CHOLESTASIS	0 (0%)	2 (6.6%)
PREECLAMPSIA	0 (0%)	1 (3.3%)
DIABETES MELLITUS	0 (0%)	1 (3.3%)
HIGH BLOOD PRESSURE	0 (0%)	0 (0%)
NEPHROPATHY	0 (0%)	0 (0%)
NEONATAL LUPUS	0 (0%)	0 (0%)
HEART BLOCK	0 (0%)	0 (0%)
MALFORMATION	0 (0%)	0 (0%)
HELLP SYNDROME	0 (0%)	0 (0%)
TOTAL	6 (54.6%)	11 (36.4%)

Regarding concomitant treatment, low dose prednisone was used in 48.8% of pregnancies, hydroxychloroquine in 51.2%, sulfasalazine in 9.8% and acetylsalicylic acid in 51.2%. We didn't find differences in the use of these treatments between the two groups.

Median DAS28 among RA patients and available data was under 2.6 throughout pregnancy as well as previously and posteriorly. No differences in median DAS28 were found between women with BT and without BT. SpA patients had BASDAI lower than 4 in both groups during pregnancy and previously.

Conclusion: In our series, as described in the literature, women with inflammatory arthropathies are older and are more likely to have preterm births compared to general population. Fewer abortions were registered during follow-up in the multidisciplinary unit. Appropriate disease control was maintained during pregnancy, also previously and afterwards. We registered more IUGR and low birth weight among women with BT but given the low number of patients with BT no statistically significant conclusions about complications can be drawn. Therefore, more studies among pregnant women with BT are necessary.

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AB0152

PROSPECTIVE ANALYSIS OF OBSTRUCTIVE SLEEP APNEA IN NEWLY DIAGNOSED PATIENTS WITH RHEUMATOID ARTHRITIS, PSORIATIC ARTHRITIS AND PERIPHERAL SPONDYLOARTHRITIS - A SCREENING STUDY

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Background: An increased prevalence of obstructive sleep apnea (OSA) in patients with rheumatoid arthritis (RA), psoriatic arthritis (PsA) and partially in peripheral spondylarthritis (pSpA) has been noted and described for nearly two decades. Until now, there is no study yet on the occurrence of OSA in patients with these entities at the point of first diagnosis. Identifying and treating OSA could prove pivotal in improving cardiovascular risk and quality of life. Furthermore, clinicians require insights into whom to screen.

Objectives: To assess the prevalence of OSA in early RA, PsA and pSpA and strategies for targeted screening.

Methods: We performed a prospective study on patients with first diagnosis of RA, PsA or pSpA, who were screened for day sleepiness (assessed by the Epworth sleepiness scale) and tested for obstructive sleep disorders by out-of-center sleep apnea polygraphy (employing Embletta® MPR-PG devices) at the University Hospital of Bonn, Germany. Findings were assessed by three physicians, always including an attending physician responsible for the certified sleep laboratory.

Results: A total of 22 patients with RA (52.38%), 15 with PsA (35.7%), and 5 (11.9%) with pSpA were included. Day sleepiness screening was unremarkable (ESS <10) in 29 (69%) patients and suspicious for a sleep disorder (ESS ≥10) in 13 patients (31%). Subsequent sleep studies of five patients (11.9%) were suspicious for severe sleep apnea (AHI >15/h), eight (19.1%) for low-to-moderate sleep apnea (AHI 5-15/h) and 29 (69.1%) were unremarkable (AHI <5). Of the eight low-to-moderate results, none were symptomatic as in ESS ≥10, resulting in a total of five (11.9%) guideline-confirming referrals for inpatient polysomnography/ventilation therapy. In comparison with the PsA/pSpA group, a diagnosis of RA had no significant relationship with ESS results (p=0.23), nor AHI results ≥5/h (p=0.14). The male cohort yielded more pathological sleep studies, but the result was not significant (16% vs. ~5.9%, p=0.32). Higher ESS scores (≥10) were not predictive for findings which require a referral (p=0.37). Increased BMI (≥25 kg/m²) was not associated with an AHI > 5/h (p=0.63).

Conclusion: From the point of screening, a number needed to screen of 8.4 (6.25 in the male, 17 in the female group), speaks in favor of overall cost-efficient screening for OSA in newly diagnosed male patients with arthritis diseases. A different study design, comparing early vs. established arthritis cohorts is necessary to assess the role of disease duration in the possible development of OSA.

REFERENCES:

- [1] Chung W-S, Lin C-L. Sleep disorders associated with risk of rheumatoid arthritis. Sleep Breath [Internet]. 2018 Dec 11;22(4):1083–91. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/29428977>.
- [2] Vakil M, Park S, Broder A. The complex associations between obstructive sleep apnea and auto-immune disorders: A review. Med Hypotheses [Internet]. 2018;110:138–43. Available from: <https://doi.org/10.1016/j.mehy.2017.12.004>.
- [3] Wali S, Mustafa M, Manzar D, Bawazir Y, Attar S, Fathaldin O, et al. Prevalence of obstructive sleep apnea in patients with rheumatoid arthritis. J Clin Sleep Med. 2020.

Table 1. Patient characteristics

	Total (n=42)	RA (n=22)	PsA (n=15)	pSpA (n=5)
Age				
Median (IQR)	49 (36-61)	58 (39-64)	43 (30-55)	39 (39-46)
Sex				
Male	25 (59.5%)	15 (68.2%)	6 (40%)	4 (80%)
Female	17 (40.5%)	7 (31.8%)	9 (60%)	1 (20%)
Obesity by BMI (<25/≥25)				
Normal weight/	19 (45.2%)	10 (45.5%)	7 (46.6%)	2 (40%)
Underweight/				
Overweight/	23 (54.8%)	12 (55.5%)	8 (53.3%)	3 (60%)
Obesity				
ESS Score				
<10	29 (69%)	17 (77.3%)	8 (53.3%)	4 (80%)
≥10	13 (31%)	5 (22.7%)	7 (46.7%)	1 (20%)
AHI				
<5/h	29 (69%)	13 (59.1%)	12 (80%)	4 (80%)
5-15/h	8 (19.1%)	6 (27.3%)	1 (6.7%)	1 (20%)
>15/h	5 (11.9%)	3 (13.6%)	2 (13.3%)	0 (0%)

RA – rheumatoid arthritis, PsA – psoriatic arthritis, pSpA – peripheral spondyloarthritis, IQR – interquartile range, BMI – body mass index, ESS – Epworth Sleepiness Scale, AHI – Apnea/Hypopnea Index

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AB0153

REAL LIFE SEVERE INFECTIONS IN PATIENTS WITH RHEUMATOID ARTHRITIS ON TREATMENT WITH BIOLOGICAL THERAPY AND JAKI

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Background: Infections are one of the main complications among patients with rheumatoid arthritis (RA) with immunosuppressive treatment. The differences between treatments and the influence of other factors is unclear.

Objectives: To evaluate the frequency and factors associated with serious infections in patients with RA treated with biological therapy (BT) and JAKi and the differences between treatments.

Methods: Descriptive and retrospective study (January 2015-December 2020) of patients with RA treated with BT (TNFi, non-TNFi) and JAKi (tofacitinib, baricitinib, upadacitinib) in a single center. Severe infection was considered a life-threatening infection or one that required hospitalization and intravenous treatment. Epidemiological variables, clinical characteristics, Charlson comorbidity index, type of BT or JAKi and concomitant treatment were collected.

For the analysis frequencies and percentages are used in qualitative variables and mean ± SD in the quantitative ones. Statistical analysis was performed with IBM SPSS v 23.

Results: We registered 257 patients (84.4% women) mean aged 56.1±13.4 years. RF was positive in 86.8%, anti-CCP in 75.9% and 16.5 % presented extra-articular manifestations (nodulosis 9.7%, interstitial lung disease 4.3%, other 1.5%). At the start of the study, 157 (61.1%) patients were with TNFi, 80 (31.1%) with non-TNFi and 20 (7.8%) with JAKi. Conventional synthetic DMARDs (csDMARDs) were used in 86% of cases (methotrexate 71.1%, leflunomide 21.2%, other 7.7%).

During the study, 162 (63%) patients continued with the same treatment and in 95 (37%) it was changed at least once. 3 patients discontinued the treatment. At the end of the study, 126 (49%) patients were with TNFi, 81 (31.5%) with non-TNFi and 47 (18.3%) with JAKi.

Severe infection was developed in 28 (10.9%) patients (13 respiratory, 5 urinary, 5 cellulitis, 4 sepsis, 1 osteomyelitis) among them 2 patients had severe infection and herpes zoster at the same time and 3 developed a second infection. 14 (50%) patients were with TNFi, 8 (28.6%) with non-TNFi and 6 (21.4%) with JAKi. Table 1

The inflammatory activity of RA was mild at the time of infection (DAS28: 2.6±1.1). The median time until infection was: TNFi 45.25 [4.9-202.3] months, non- TNFi 19.14 [4.9-72.5] months and JAKi 17.63 [1.1-29.2] months.

The Charlson index, concomitant use of glucocorticoids (GCC) at lower doses than 10mg/d, chronic obstructive pulmonary disease (COPD), diabetes (DM), moderate-severe renal insufficiency, congestive heart failure (CHF) and peripheral vascular disease were statistically significantly associated with infection. Table 1.

TABLE 1. CHARACTERISTICS OF PATIENTS WITH INFECTION VS. WITHOUT INFECTION

	INFECTION		
	YES n:28	NO n:229	p
FEMALE , n (%)	22 (78.6)	195 (85.2)	0.406
AGE years , (mean±SD)	57.7 ± 13.9	55.9 ± 13.4	0.507
AGE ≥ 65 n (%)	10 (35.7)	68 (29.7)	0.513
RF + , n (%)	25 (89.3)	198 (86.5)	0.677
ANTI-CCP + , n (%)	21 (75)	174 (75.1)	1.00
ILD , n (%)	1 (3.5)	10 (4.3)	0.809
ALCOHOL , n (%)	3 (10.7)	17 (7.4)	0.465
SMOKER , n (%)	10 (35.7)	60 (26.2)	0.244
COPD , n (%)	7 (25)	24 (10.5)	0.026*
DM , n (%)	7 (25)	19 (8.3)	0.013*
CHF , n (%)	4 (14.3)	1 (0.4)	0.001*
RENAL INSUFFICIENCY , n (%)	3 (10.7)	2 (0.9)	0.010*
PERIPHERAL VASCULAR DISEASE , n (%)	9 (32.1)	22 (9.6)	0.002*
CHARLSON INDEX (mean±SD)	1.64 ± 2.1	0.63 ± 1.2	0.001*
TNFi , n (%)	14 (50)	112 (48.9)	
NON-TNFi , n (%)	8 (28.6)	73 (31.9)	
JAKi , n (%)	6 (21.4)	41 (17.9)	
csDMARDs , n (%)	22 (78.6)	159 (69.4)	0.317
GCC dose <10mg/d , n (%)	17 (60.8)	111 (48.5)	0.007*

Conclusion: In our study, 10.9% of patients with RA treated with BT or JAKi developed severe infection during 5 years of follow-up. Concomitant GCC therapy and comorbidity increased the risk of presenting this complication.

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AB0154

USAGE OF THE SARC-F QUESTIONNAIRE FOR SARCOPENIA SCREENING IN PATIENTS WITH RHEUMATOID ARTHRITIS

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Background: Sarcopenia, characterized by low muscle strength and low muscle quantity or quality and associated with increased risks of falling and mortality. The prevalence of sarcopenia is 37% among patients with RA [1]. However, in clinical practice settings, sarcopenia among RA patients remains underdiagnosed. The SARC-F questionnaire [2] was recommended by the European Working Group on Sarcopenia in Older People (EWGSOP) before performing muscle strength tests and assessment muscle mass.

Objectives: To evaluate the diagnostic value of the SARC-F questionnaire for the screening of sarcopenia (SP) in women with rheumatoid arthritis (RA).

Methods: 83 women (average age 59±8 years) with RA without aseptic bone necrosis, joint replacement and severe comorbidities were recruited. All patients were interviewed with the SARC-F questionnaire. The summation score ≥ 4 corresponded to cut-off for suspected sarcopenia. Sarcopenia was evaluated using the European Working Group on Sarcopenia in Older People (EWGSOP2), which included dual-energy X-ray absorptiometry (DXA), hand-grip strength or chair stand test, and gait speed. The sensitivity, specificity, positive and negative prognostic values of the SARC-F questionnaire were estimated.

Results: Confirmed SP was diagnosed in 20 (24%) RA patients, who had low muscle strength and mass. When conventional cut-off point (≥4) for SARC-F questionnaire was applied, only 30% of the patients with SP met this condition (sensitivity 30%, 95% confidence interval [95% CI] 13% to 54%), and 41% of the patients without SP did not meet this condition (specificity 41%, 95% CI 29% to 54%). Positive and negative prognostic values were 14% (95% CI 6% to 29%) and 65% (95% CI 48% to 79%), respectively.

Conclusion: The SARC-F questionnaire alone is not adequate for screening of SP in RA patient. It is necessary to develop other simple screening methods that can easily be carried out in real clinical practice to identify individuals with possible SP for further diagnostic tests.

REFERENCES:

- [1] Torii M, Hashimoto M, Hanai A, et al. Prevalence and factors associated with sarcopenia in patients with rheumatoid arthritis. *Modern Rheumatology*, 2018;29(4):589-595. doi:10.1080/14397595.2018.1510565.
- [2] Cruz-Jentoft AJ, Bahat G, Bauer J, et al. Writing Group for the European Working Group on Sarcopenia in Older People 2 (EWGSOP2), and the Extended Group for EWGSOP2. Sarcopenia: revised European consensus on definition and diagnosis. *Age Ageing*. 2019;48(1):16-31. doi:10.1093/ageing/afy169.

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